

## Calendar

**Tuesday, Nov. 20**  
**3:30 p.m.**

DIRECTOR'S COFFEE  
 BREAK - 2nd Flr X-Over  
 THERE WILL BE NO  
 ACCELERATOR PHYSICS  
 AND TECHNOLOGY  
 SEMINAR TODAY

**4 p.m.**

[Special Fermilab Colloquium](#) -

One West (NOTE DATE)  
 Speaker: Y. Wang, Institute of  
 High Energy Physics, Beijing  
 Title: From BEPC to Daya Bay  
 - An Introduction to Particle  
 Physics in China

**Wednesday, Nov. 21**

THERE WILL BE NO  
 FERMILAB ILC R&D  
 MEETING THIS WEEK  
**2:30 p.m.**

[Special Particle Astrophysics](#)

[Seminar](#) - Curia II (NOTE

DATE)

Speaker: J. Roberts, University  
 of Warsaw

Title: Use and Abuse of Fine-  
 Tuning: Dark Matter at the LHC

**3:30 p.m.**

DIRECTOR'S COFFEE  
 BREAK - 2nd Flr X-Over  
 THERE WILL BE NO  
 FERMILAB COLLOQUIUM  
 TODAY

[Click here](#) for NALCAL,  
 a weekly calendar with links  
 to additional information.

## Weather



**Chance of showers**

**58°/44°**

[Extended Forecast](#)

[Weather at Fermilab](#)

## Current Security Status

[Secon Level 3](#)

## Feature

### Handle holiday stress with Recreation Office offerings



ILC Communicator for the  
 Americas Elizabeth  
 Clements practices yoga at  
 her desk during lunch.  
 Clements participates in the  
 Recreation Office sponsored  
 hatha yoga class on  
 Tuesdays.

Exercise is one of the best ways to relieve  
 holiday stress and, according to Recreation  
 Office Manager Jean Guyer, there are plenty  
 of ways for employees and users to center  
 their bodies and minds. The Recreation Office  
 offers back-to-back [classes](#), including yoga,  
 strength training and Kyuki-Do, through the  
 holiday season and beyond.

Christopher Baxter teaches Fermilab's Hatha  
 Yoga classes on Tuesdays from noon to 1 p.  
 m. in Ramsey Auditorium. "The class allows  
 employees to take an hour out of their work  
 day and benefit from yoga," he said. "Some  
 participants say it feels like taking a nap or  
 having a whole body massage. It allows you to  
 relax before going back to work."

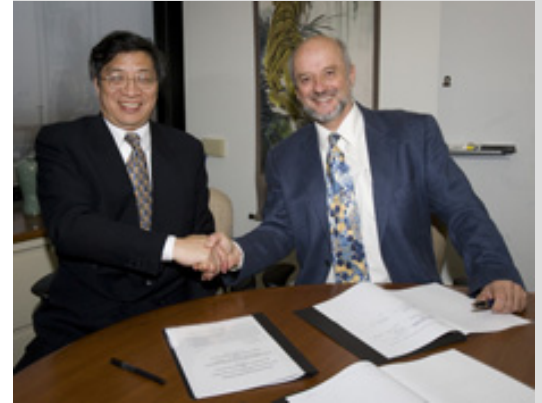
People can also sign up for six-week sessions  
 of muscle toning classes, which meet Tuesday  
 and Thursday evenings or Kyuki-Do, a Korean  
 style of martial arts, which meets on Monday  
 and Wednesday.

Those interested in other forms of exercise  
 should stay on the look out for more offerings  
 this season. "In the past, we have also offered  
 self-defense classes and a dance program,  
 including country line dancing and ballroom

As Christmas  
 music fills the air  
 and holiday  
 shopping, cooking  
 and family  
 gatherings fill  
 every moment of  
 spare time, the  
 stress and  
 pressure of the  
 holiday season  
 sets in. But now,  
 imagine a quiet,  
 gentle ocean.  
 Concentrate on  
 your breath.  
 Reach skyward  
 and then fold  
 forward. Doesn't  
 that feel better?

## Director's Corner

### 28 and Counting



[Hesheng Chen, Director of the Institute for High  
 Energy Physics, and Fermilab Director Pier  
 Oddone shake hands after signing a MOU.](#)

During the last two days we have been  
 privileged to host the 28th meeting of the U.S./  
 China Joint Committee on High Energy  
 Physics. The protocol for this committee falls  
 under the comprehensive U.S. - China  
 Agreement on Cooperation in Science and  
 Technology signed by President Jimmy Carter  
 and Premier Deng Xiaoping in 1979. Pief  
 Panofsky, T.D. Lee and Bob Wilson played  
 important roles in opening scientific  
 cooperation between the U.S. and China --  
 one of the earliest cooperative ventures  
 between our two nations following the Cultural  
 Revolution. I started participating in the Joint  
 Committee 21 years ago when I was Physics  
 Division Director at LBNL. I have seen over  
 the years not only the tremendous economic  
 growth that has transformed China, but also  
 the remarkable development of the country's  
 accelerator-based science.

Today the tau-charm factory is being  
 commissioned in Beijing at the Institute for  
 High Energy Physics, the Shanghai  
 Synchrotron Radiation Facility is under  
 construction with a magnificent new building in  
 the Pudong area of Shanghai and construction  
 of the China Spallation Neutron Source is  
 about to start in Guangdong in Southern  
 China. These three facilities are state-of-the  
 art, world-class facilities. Cooperation between  
 the U.S. and China began in the area of  
 particle physics but is now more pervasive as  
 laboratories both in the U.S. and in China build  
 accelerator-based facilities for other sciences.

**Wilson Hall Cafe****Tuesday, Nov. 21**

- Creamy turkey vegetable
- Chicken gyros
- \*Salisbury steaks w/ mushroom au jus
- Chicken cacciatore
- Italian panini w/provolone
- Assorted slice pizza
- Super burrito

*\*Carb Restricted Alternative*

[Wilson Hall Cafe Menu](#)

**Chez Leon****Wednesday, Nov. 21  
Lunch**

- Cheese fondue
- Apple & pecan salad on field greens
- Baked pears w/bittersweet chocolate sauce

**Thursday, Nov. 22  
Dinner**

- Closed

[Chez Leon Menu](#)

Call x4598 to make your reservation.

**Archives**

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[ILC NewsLine](#)

**Info**

Fermilab Today is online at:

[www.fnal.gov/today/](http://www.fnal.gov/today/)

Send comments and suggestions to:

[today@fnal.gov](mailto:today@fnal.gov)

dancing classes," said Guyer.

For a less structured work out, employees and users can join the recreation facility. "There's no reason that people shouldn't find a way to have fun, exercise and relieve stress at this time of year," said Guyer.

[More information](#) and registration for all classes and the Recreation Facility is available in the Recreation Office on the 15th floor of Wilson Hall.

-- Haley Bridger

**Holiday humor****Turkey tales**

Have you ever (accidentally) made a rainbow-colored turkey? Had a furry friend start the meal without you?



*Image courtesy of grinning planet.*

Talk turkey with us! [Send us](#) your tales of

Thanksgiving meals gone awry (the funnier the better). We'll publish some of our favorites in Wednesday's issue of *Fermilab Today*.

**In the News****The Unexplained: The God of small things - How the universe holds together**

From *San Francisco Sentinel*, Nov. 16, 2007

40 years ago, an unknown physicist in Edinburgh, Scotland, came up with a theory of how the universe holds together - sparking a multibillion dollar race to find the key particle. Is the most sought after prize in modern physics about to be won at last?

Amid 800 acres of landscaped grounds a mile from Princeton, New Jersey, stands the Institute for Advanced Study, one of the world's most prestigious centers of scientific thought. Within this intellectual microcosm, many of the most accomplished physicists in history, from Oppenheimer to Einstein, have wrestled with the deepest puzzles of the universe. To be invited to talk at Einstein's former lab remains among the highest honors a scientist can receive. And it was with this terrifying thought in mind that in March 1966 Peter Higgs, a 36-year-old physicist from

There is also a very important non-accelerator experiment, the Daya Bay experiment, initiated by LBNL and IHEP and today the world's most ambitious reactor-based neutrino experiment.

During the meeting, Hesheng Chen, Director of IHEP, and I, signed a memorandum of understanding between IHEP and Fermilab on the development of SCRF technology. This follows a recent MOU that Fermilab signed with Peking University. Our collaboration in R&D will hopefully lead to joint US - China projects to build new accelerators based on SCRF technology.



Members of the U.S./China Joint Committee on High Energy Physics meet as part of the committee's 28th meeting, held at Fermilab this week.

**Accelerator Update****Nov. 16-19**

- Four stores provided 49 hours and 56 minutes of luminosity
- Recycler beam valve repaired
- Recycler experts revert to old damper system
- NuMI resumes taking beam
- Kicker problem halts NuMI beam

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

**Announcements**

Edinburgh University, loaded up his car and headed up the freeway.

Tucked into Higgs's luggage was the reason he had been invited. The notes for his highly contentious lecture overturned some of the most deeply-held beliefs of the resident experts. They proposed something remarkable, that an invisible field, which stretches throughout the entire universe, holds the key to one of the greatest mysteries of modern science - the nature of matter and mass.

[Read More](#)

### In the News

## Shadow World

From *Science News Online*,  
week of Nov. 17, 2007

*How many dimensions space has could all be a matter of perspective*

In a school of thought that teaches the existence of extra dimensions, Juan Maldacena may at first sound a little out of place. String theory is physicists' still-tentative strategy for reconciling Einstein's theory of gravitation with quantum physics. Its premise is that the subatomic particles that roam our three-dimensional world are really infinitesimally thin strings vibrating in nine dimensions. According to Maldacena, however, the key to understanding string theory is not to add more dimensions but to cut their number down.

In his vision, the mathematical machinery of strings completely translates into a more ordinary quantum theory of particles, but one whose particles would live in a universe without gravity. Gravity would be replaced by forces similar to the nuclear forces that prevailed in the universe's first instants. And this would be a universe with fewer dimensions than the realm inhabited by strings.

[Read More](#)

## AFS outage Saturday morning

On Saturday, Nov. 24, from 6 to 10 a.m., the AFS service will be out for an emergency upgrade. It has been determined that the current release of code, OpenAFS v1.4.4 can have issues with clients that are behind a NAT. These issues can indirectly cause a resource problem on the file servers. This outage will affect central web services and FNALU.

## "Water to the Ropes" showing at noon Wednesday

In honor of the 40th anniversary of Fermilab, there will be a showing of "Water on the Ropes: The evolution of an accelerator" at noon on Wednesday in One West. The film is 30 minutes long. It was made to commemorate the 20-year anniversary of Fermilab on Dec 2, 1988. Brief interviews with Robert Wilson and Leon Lederman are shown as well as early construction footage. This program was produced by Visual Media Services.

## Benefit enrollment

Wednesday, Nov. 28 is the final day to review and change your benefits for the 2008 plan year. You will find enrollment materials on the [Benefits Office Web site](#). Representatives from Blue Cross and CIGNA will be available on Wednesday, Nov. 14, from 8 a.m. to noon and Tuesday, Nov. 20, from 1 to 5 p.m. They will be located in the Aquarium Conference Room on the 15th floor of Wilson Hall.

## Seasonal holiday student requests

Managers who would like to bring back their summer students for holiday seasonal employment can access information and a request form [here](#). Only students who were summer 2007 employees are eligible. Students who were on-call must return as on-call workers.

## Education Office holiday sale Dec. 4-6

The Education Office will host its annual holiday sale Dec. 4-6, from 11 a.m. to 1:30 p.m., outside One West in Wilson Hall.

## Scottish Country Dancing Tuesday

Scottish Country Dancing will meet today, Nov. 20, at Kuhn Barn on the Fermilab site. Instruction begins at 7:30 p.m. and newcomers are always welcome. Most dances are fully taught and walked through. You do not need to come with a partner. For more information call (630) 840-8194 or (630) 584-0825 or e-mail [folkdance@fnal.gov](mailto:folkdance@fnal.gov).

